

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended): A method for algebrizing a syntax tree representation of a relational database query into a relational algebra representation, said syntax tree comprising a plurality of nodes, and said algebrizing comprising a plurality of operations each of which can be performed in a single pass through said syntax tree representation, said method comprising the step of performing at least two operations in a single pass through said syntax tree representation, one of the operations being constant folding.

Claim 2 (Original): The method of claim 1 wherein said at least two operations are executed in a predetermined order at each of said plurality of nodes.

Claim 3 (Original): The method of claim 2 wherein
said at least two operations comprise a first operation and a second operation; and
said second operation either executes or does not execute at each of said plurality of nodes and after said first operation based on a result from said first operation.

Claim 4 (Original): The method of claim 1 wherein said at least two operations comprises at least one operation from among a group of operations, said group of operations comprising: table and column binding; aggregate binding; type derivation; constant folding; property derivation; and tree translation.

Claim 5 (Original): The method of claim 1 wherein said at least two operations comprises at least all operations from among a group of operations, said group of operations comprising: table and column binding; aggregate binding; type derivation; property derivation; and tree translation.

Claim 6 (Canceled)

Claim 7 (Original): The method of claim 1 wherein said algebrizing comprises at least one operation from among a group of operations, said group of operations comprising: table and column binding; aggregate binding; type derivation; constant folding; property derivation; and tree translation.

Claim 8 (Canceled)

Claim 9 (Canceled)

Claim 10 (Original): A method for algebrizing a syntax tree representation of a relational database query into a relational algebra representation, said syntax tree comprising a plurality of nodes, and said algebrizing comprising a plurality of operations, said method comprising the inclusion of constant folding as an operation among said plurality of operations.

Claim 11 (Currently Amended): A system for algebrizing a syntax tree representation of a relational database query into a relational algebra representation, said syntax tree comprising a plurality of nodes, said system comprising:

- a plurality of operations; and
- a subsystem for performing at least two operations in a single pass through said syntax tree representation, one of the operations being constant folding.

Claim 12 (Original): The system of claim 11 wherein said system executes at least two operations in a predetermined order at each of said plurality of nodes during said single pass through said syntax tree representation.

Claim 13 (Original): The system of claim 12 wherein

- said at least two operations comprise a first operation and a second operation;
- said subsystem executes said first operation before said second operation at each of said plurality of nodes, and receives a result from said first operation at each of said plurality of nodes; and

said subsystem either executes or does not execute said second operation at each of said plurality of nodes, on a node by node basis, based on a result from said first operation.

Claim 14 (Original): The system of claim 11 wherein said at least two operations comprises at least one operation from among a group of operations, said group of operations comprising: table and column binding; aggregate binding; type derivation; constant folding; property derivation; and tree translation.

Claim 15 (Original): The system of claim 11 wherein said at least two operations comprises at least all operations from among a group of operations, said group of operations comprising: table and column binding; aggregate binding; type derivation; property derivation; and tree translation.

Claim 16 (Canceled)

Claim 17 (Original): The system of claim 11 wherein said algebrizing comprises at least one operation from among a group of operations, said group of operations comprising: table and column binding; aggregate binding; type derivation; constant folding; property derivation; and tree translation.

Claim 18 (Canceled)

Claim 19 (Canceled)

Claim 20 (Original): A system for algebrizing a syntax tree representation of a relational database query into a relational algebra representation, said syntax tree comprising a plurality of nodes, said system comprising:

- a plurality of operations; and
- constant folding as an operation among said plurality of operations.

Claim 21 (Currently Amended): A computer-readable medium comprising computer-readable instructions for algebrizing a syntax tree representation of a relational database query into a relational algebra representation, said syntax tree comprising a plurality of nodes, and said algebrizing comprising a plurality of operations each of which can be performed in a single pass through said syntax tree representation, said computer-readable instructions comprising instructions for performing at least two operations in a single pass through said syntax tree representation, one of the operations being constant folding.

Claim 22 (Currently Amended): The computer-readable instructions of claim ~~[[1]]~~ 21 further comprising instructions for at least two operations to be executed in a predetermined order at each of said plurality of nodes.

Claim 23 (Currently Amended): The computer-readable instructions of claim ~~[[2]]~~ 22 further comprising instructions for

at least two operations to comprise a first operation and a second operation; and
executing or not executing said second operation at each of said plurality of nodes after said first operation has executed based on a result from said first operation.

Claim 24 (Currently Amended): The computer-readable instructions of claim ~~[[1]]~~ 21 further comprising instructions whereby said at least two operations comprise at least one operation from among a group of operations, said group of operations comprising: table and column binding; aggregate binding; type derivation; constant folding; property derivation; and tree translation.

Claim 25 (Currently Amended): The computer-readable instructions of claim ~~[[1]]~~ 21 further comprising instructions whereby said at least two operations comprises at least all operations from among a group of operations, said group of operations comprising: table and column binding; aggregate binding; type derivation; property derivation; and tree translation.

Claim 26 (Canceled)

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Claim 27 (Currently Amended): The computer-readable instructions of claim ~~[[1]]~~ 21 further comprising instructions whereby said algebrizing comprises at least one operation from among a group of operations, said group of operations comprising: table and column binding; aggregate binding; type derivation; constant folding; property derivation; and tree translation.

Claim 28 (Canceled)

Claim 29 (Canceled)

Claim 30 (Original): A computer-readable medium comprising computer-readable instructions for algebrizing a syntax tree representation of a relational database query into a relational algebra representation, said syntax tree comprising a plurality of nodes, and said algebrizing comprising a plurality of operations, said computer-readable instructions comprising instructions for constant folding as an operation among said plurality of operations.